

## Claims:

1. Babesia protein, characterised in that said protein comprises an amino acid sequence having a homology of at least 70% with the amino acid sequence from amino acid position 17 to position 180 in SEQ ID NO 2, or an immunogenic fragment of said protein.
2. Babesia protein according to claim 1, characterised in that said protein comprises an amino acid sequence having a homology of at least 70% with the amino acid sequence as depicted in SEQ ID NO 2, or an immunogenic fragment of said protein.
3. Babesia protein according to claim 1, characterised in that said protein comprises an amino acid sequence having a homology of at least 70% with the amino acid sequence as depicted in SEQ ID NO 4, or an immunogenic fragment of said protein.
4. Nucleic acid, characterised in that it encodes the protein according to claims 1-3, or an immunogenic fragment of said protein.
5. Nucleic acid according to claim 4, characterised in that it comprises the nucleic acid of SEQ ID NO: 1.
6. Nucleic acid according to claim 4, characterised in that it comprises the nucleic acid of SEQ ID NO: 3.
7. cDNA fragment comprising a nucleic acid according to claims 4-6.
8. Recombinant DNA molecule comprising a nucleic acid according to claims 4-6 or a cDNA fragment according to claim 7, under the control of a functionally linked promoter.
9. Live recombinant carrier comprising a nucleic acid according to claims 4-6, a cDNA fragment according to claim 7 or a recombinant DNA molecule according to claim 8.

10. Host cell comprising a nucleic acid according to claims 4-6, a cDNA fragment according to claim 7, a recombinant DNA molecule according to claim 8 or a live recombinant carrier according to claim 9.
11. Vaccine comprising a protein according to claims 1-3 or an immunogenic fragment of said protein, a nucleic acid according to claims 4-6, a cDNA fragment according to claim 7, a recombinant DNA molecule according to claim 8, a live recombinant carrier according to claim 9 or a host cell according to claim 10, or a combination thereof, and a pharmaceutically acceptable carrier.
12. Vaccine according to claim 11, characterised in that it comprises an adjuvant.
13. Vaccine according to claims 11-12, characterised in that it comprises an additional immunoactive component or a nucleic acid encoding said additional immunoactive component.
14. Vaccine according to claim 13, characterised in that said additional immunoactive component or nucleic acid encoding said additional immunoactive component is obtained from an organism selected from the group consisting of *Ehrlichia canis*, *Babesia gibsoni*, *B. vogeli*, *B. rossi*, *Leishmania donovani*-complex, Canine parvovirus, Canine distempervirus, *Leptospira interrogans serovar canicola*, *icterohaemorrhagiae*, *pomona*, *grippotyphosa*, *bratislava*, Canine hepatitisvirus, Canine parainfluenzavirus, rabies virus, *Hepatozoon canis* and *Borrelia burgdorferi*.
15. Vaccine, characterised in that it comprises an antibody against a protein according to claims 1-3 or an antibody against an immunogenic fragment of said protein, or a combination thereof, and a pharmaceutically acceptable carrier.
16. Method for the preparation of a vaccine according to claims 11-14, said method comprising the admixing of a protein according to claims 1-3, or an immunogenic fragment of said protein, a nucleic acid according to claims 4-6, a cDNA fragment according to claim 7, a recombinant DNA molecule according to claim 8, a live recombinant carrier according to claim 9 or a host cell according to claim 10, or a combination thereof, and a pharmaceutically acceptable carrier.

17. Method for the preparation of a vaccine according to claim 15, said method comprising the admixing of an antibody against a protein according to claims 1-3 or an antibody against an immunogenic fragment of said protein and a pharmaceutically acceptable carrier.
18. Use of a protein according to claims 1-3 or an immunogenic fragment of said protein for the manufacture of a vaccine for prophylactic or therapeutic treatment of an infection or its clinical signs caused by an organism of the family Babesiidae.
19. Diagnostic test for the detection of a nucleic acid associated with an organism of the family Babesiidae, characterised in that the test comprises a nucleic acid, said nucleic acid being at least 70 % homologous to the nucleic acid sequence depicted in SEQ ID NO: 1 or 3, or a nucleic acid that is complementary to said nucleic acid, wherein either of the nucleic acids have a length of at least 12, preferably 15, more preferably 18 nucleotides.
20. Diagnostic test for the detection of antibodies against an organism of the family Babesiidae, characterised in that said test comprises a protein according to claims 1-3, or an immunogenic fragment of said protein, or a combination thereof.
21. Diagnostic test for the detection of antigenic material from an organism of the family Babesiidae, characterised in that said test comprises an antibody against a protein according to claims 1-3 or an antibody against an immunogenic fragment of said protein, or a combination thereof.